

# FATAL HEMORRHAGE FROM THE NOSE AND PHARYNX FROM UNUSUAL CAUSE; WITH EXHIBITION OF SPECIMEN.\*

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The following case illustrates a source of hemorrhage which, so far as the author knows, is in some respects entirely unique in otological and rhinological literature.

H. W. C., aged 24, male, by occupation a miner, was admitted to the Arapahoe County Hospital, May 1, 1896. His family history was negative, his personal history unimportant. At the Cripple Creek fire, April 24, during an explosion, he was struck on the left jaw, causing a severe hemorrhage from the nose. He was carried to the side of a hill where he lay for several hours, during which time the hemorrhage continued. He finally fainted and does not know how long he remained in this condition. Upon admission to the hospital a careful examination revealed no fracture of the jaw, but considerable contusion of the soft parts. His condition rapidly improved without especial treatment, and on May 4 he was discharged at his own request (Dr. A. H. Williams, house surgeon). May 9, he was admitted to St. Luke's Hospital very weak, anemic; lips, conjunctiva and skin blanched. Since leaving Arapahoe County Hospital he had had several serious hemorrhages from the nose and pharynx. His posterior nares contained plugs which had been placed there two days previous to his entrance into St. Luke's Hospital. The plugs were allowed to remain until May 13, when on account of the pain, odor and increased temperature— $102\frac{3}{4}^{\circ}$ —they were removed. He gradually improved, his temperature became normal, appetite returned, he gained in flesh, etc. On May 24 he was allowed to dress and move about. After two days he began complaining of pain in the left ear and progressive deafness. The pain was at first localized to the floor of the meatus, but subsequently spread to the mastoid process and to the area im-

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mediately in front of the ear. His temperature gradually rose to  $102\frac{1}{2}^{\circ}$ . He was put to bed and was examined by Dr. J. M. Foster, who found nothing abnormal in the appearance of the meatus, the external auditory canal, or the membrana tympani. Several small hemorrhages from the nose occurred during this time, but were easily controlled by pressure and plugs of cotton in the anterior nares. On June 1, the pain ceased, the temperature fell to  $99^{\circ}$ , and a small amount of discharge exuded from the ear. At 4 A. M., June 2, while turning in bed, the patient had a severe hemorrhage from the nose and throat (Dr. S. Bell, house surgeon).

I was first notified of the case at this time, and ordered plugging with cotton, saturated in peroxide of hydrogen. Upon my visit to the hospital a few hours later, I found the hemorrhage had ceased, but patient complained of large clots in naso-pharynx, which were continually being swallowed. The patient's appearance was that of one nearly ensanguinated. Absolute quiet was ordered; a nourishing liquid diet; strychnia and iron and saline enemata. For several days the improvement was rapid, but the past history of the case warned us to be extremely cautious in allowing the patient to move about. In spite of the most stringent orders, the patient, who was an unruly one, managed surreptitiously to leave his bed on the morning of June 8th. He walked a distance of fifteen or twenty feet, whereupon a violent hemorrhage took place. He immediately went into collapse, and died the same day at 9:25 p.m.

An autopsy held by Dr. E. R. Axtell, revealed the following:

"No blood in the meningeal vessels; dura mater not adherent; a small long white clot in the superior longitudinal sinus, but no thrombus; in the middle fossa, at the suture of the temporal and sphenoidal bones, posterior to the foramen ovale, there showed through the meninges from above a discolored area the size of half a cent. On reflecting the membrane at this point, there was found a small collection of grayish-brown, purulent disorganized material at the opening of and filling the foramen spinosum, which opening seemed larger than normal and irregular in outline. A probe was introduced and passed forward, downward and to the right, and was felt by the finger in the mouth to touch the upper part of the soft palate."

The course of the probe was evidently through the Eustachian tube, the septum between the foramen spinosum and the Eustachian tube having been destroyed. Further examination revealed the existence of a purulent otitis media, involving to a slight degree the mastoid antrum, the roof of the middle ear, and extending forward to the anterior portion of the petrous bone. Necrosis in this course had taken

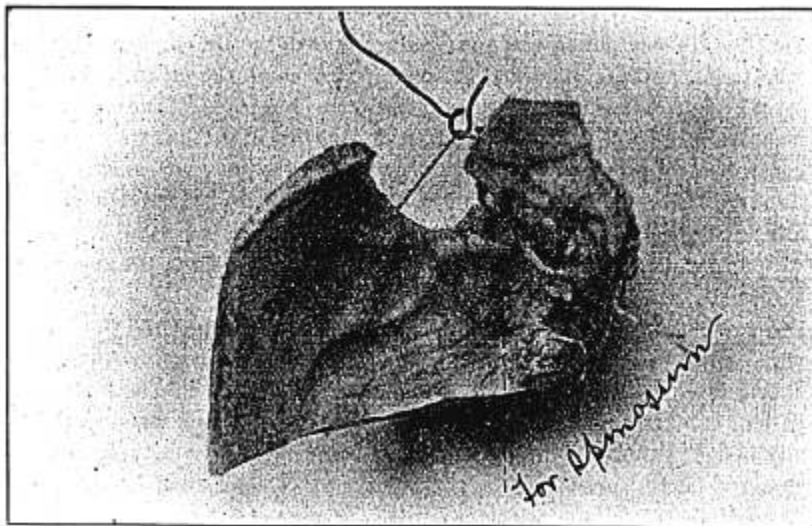


FIGURE 1. Showing foramen spinosum enlarged and of irregular outline, due to necrosis.

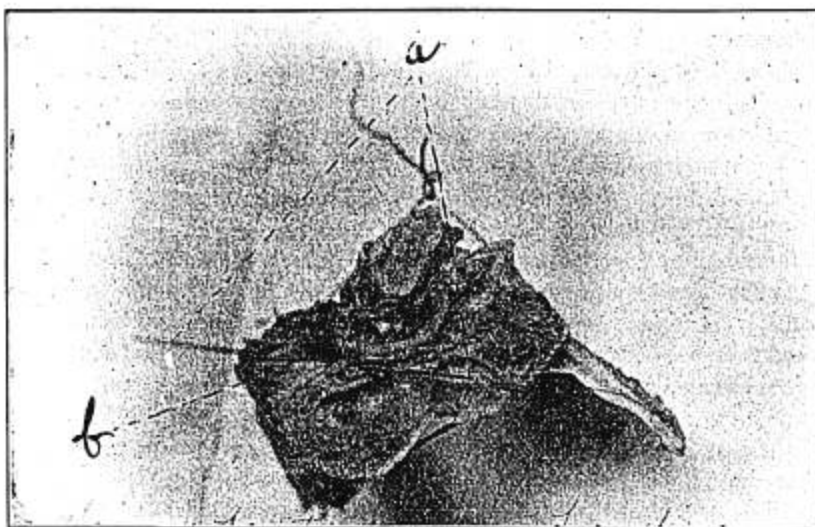


FIGURE 2. Showing penetration from For. spinosum into Eustachian tube. Wire *a* passes through Eustachian tube. Wire *b* passes from For. spinosum into Eustachian tube, crossing wire *a*.

place, the process continuing into the foramen spinosum, and from there into the Eustachian tube. The middle meningeal artery, which passes through the foramen spinosum, had been eroded to such an extent that where the opening, communicating with the Eustachian tube, was discovered, the vessel seemed completely disorganized. The source of the hemorrhage was therefore clearly from the middle meningeal artery through the Eustachian tube into the naso-pharynx. The membrana tympani not having been ruptured, explains why there was no hemorrhage from the external auditory canal.

The accompanying cuts illustrate the necrosis in the Foramen spinosum (Fig. 1), and the relation of the Eustachian tube to the course taken by the necrotic action (Fig. 2).

It is interesting to consider the cause of the suppurative otitis, in view of the traumatism which was associated with violent hemorrhage, and in view of subsequent developments. Whether the disease was of long standing, the final perforation of the artery taking place coincidentally with the severe blow, or whether the original hemorrhage was from a different source, the otitis suppurativa being the result of the plugging of the posterior nares, must remain a matter for conjecture.

It is not for the purpose of discussing this interesting question that the above case is here reported, but rather for the purpose of placing upon record a case of extreme rarity.

Fatal hemorrhage from suppurative otitis media, followed by necrosis and perforation of the internal carotid, are not frequent. Politzer, however, has collected nineteen cases. But hemorrhage from the middle meningeal, occurring in the course of otitis suppurativa and in the manner illustrated by this case, must be of the extremest rarity.